

Receiving Report

Date: 11-05-9
 Supplier: Tempo

Batch No: 134735
 Dart P/O: 31854

Packing Slip: Yes ☐ No ☐
 Invoice: Yes ☒ No ☐
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☒ No ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☒
 QC18 Inspection ☐ N/A ☒
 Work Order ☐

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

[Signature]

Production/Admin:

Date

Received/Costing

Initial

Location





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

Purchase Order ID PO31854

Purchase Order Date 3/29/2016
PO Print Date 3/29/2016

Page Number 1 of 2

Order From :

TEMPO AEROSPACE INC.
205 FENMAR DR.
TORONTO, ON M9L 2X4
CA

VC-TEM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

REVISED \$

Contact Name
Vendor Phone

416 746 2233

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Purolator ground collect

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	71400-11	4500-P-40B GREY PRIMER	4/6/2016 Yes 4/6/2016		12.00 Each	\$42.12	\$505.44

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A014 SHELF LIFE CONTROLLED MATERIAL; 70% SHELF
LIFE REQUIRED AT RECEIPT
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A040 NOTIFICATION OF QUALITY ESCAPE
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

Sp/6-04-7

Deliver To: ANDY

2 71400-11

DEF-23377-I-N-1GKT
AQUA GREEN PRIMER

5/4/2016

Yes

5/4/2016

4.00

Each

\$570.80

\$2,283.20

Line Total:

\$505.44

Sp/6-05-9

Deliver To: ANDY

Note:

3/29/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

Purchase Order ID PO31854

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Page Number 2 of 2

Order From :

TEMPO AEROSPACE INC.
205 FENMAR DR.
TORONTO, ON M9L 2X4
CA

VC-TEM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone

416 746 2233

Ship To Contact
Ship To Phone
Ship Via:
Ship Acct:

Purolator ground collect

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

PO Total:

\$2,788.64

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

2

Change Date: 3/29/2016



Tempo Aerospace Inc.

205 Fenmar Drive
Toronto ON M9L 2X4 Canada
Phone: 416.746.2233 Fax: 416.746.2235
orderdesk@tempo-aerospace.com

Packing Slip

No. 34119

Pg:1/1

Ship To : [1]

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

For : Account No. [DARTAS]

Dart Aerospace Ltd.
Attn: Chantal Lovoie, Buyer
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada
Tel : (613) 632-9577
Fax : (613) 632-1053

S.O. No. : 14238	Our Ref :	Domestic AWB :
Cust P.O. : 31854	Your Ref : REL 2 OF 2	Int'l AWB :
Picked On : May-06-2016	Trans Mode : GROUND	Origin :
Shipped On : May-06-2016	Req. Docs : CC	Transport :
Ship Via : PUROLATOR GROUND	Lic No. :	Nationality :
Incoterms : FREE CARRIER	Expires :	Trip/Flight :
Terms : NET 30		
Ship Via Acct. : PUROLATOR GROUND Account No. 7684382		
Our Contact : House Account		

Line	P/N & Description	Ordered	Qty Shipped	Back Order	Packaging
5	DEF-02GN084 BASE: Aqua Green Chromate Free Epoxy Primer Spec1: MIL-PRF-23377K TY I CL.N Batch #: 109474 LINE VOLUME: [ML] 11,360.000	4	4 GC	✓	
6	DEF-02GN084CAT CURE: Aqua Green Epoxy Primer Spec1: MIL-PRF-23377K TY I CL.N Batch #: 109475 LINE VOLUME: [ML] 3,788.000 For a DANGEROUS GOODS EMERGENCY, call Canutec at the 24 hours number (613) 996-6666 / Pour une MARCHANDISES DANGEREUSES URGENCE, appeler Canutec au nombre de 24 heures (613) 996-6666	4	4 QC	✓	
Box No.	Box(es) Type / Description Dimension Type [CM]	Gross Weight [KG]	Net Weight [KG]		Box(es) ID
1	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		a
2	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		b

Picked By :

Natasha Pisegna, INSIDE SALES/CUSTOMER

PRC-DeSoto International, Inc.

PPG Aerospace - Deft

17451 VON KARMAN AVE, IRVINE,

CA 92614-6295

Phone No.: (800) 544-3338 or

(949) 474-0400

Cust No. 771015

Bill-To: 771015B07

PPG AEROSPACE-ASC CANADA

Do not mail invoices:

aerospace_apinvoices@ppg.com

CA 91342 USA

Certificate of Conformance

Pick List: P470796

Branch: BINT

Sales Order No.: S 19901

Total Cartons: .00

Customer P.O. TC56049

Ship-To: 7710150955

TEMPO AEROSPACE, INC.

205 FENMAR DRIVE

TORONTO, ON M9L 2X4 CANADA

Phone:

Contract/Credit Auth

Number: CUST PO# 305802

Mark For: ATT: LORNA BUFFET # 416-746-2233

NO EEI FTR 30.36

CODE:CODE: 3208.90.0000

BROKER: LIVINGSTON INC.

FEDEX P1 ACCOUNT # 1717 8583 9

Remarks: TYPE: STDEAR

Order Date	Ship Date	Terms	Freight Terms	Via	Service Rep	
04/12/2016	05/09/2016	Net 30 Days	Freight Collect	FedX-Ovrmt	eddie	
Line	Order Qty	Product	Description / Reference Number	UOM	Pick Qty	No of Cartons

Expiration date of Kit is based on the date of manufacture of Base component or date of repack for Touch-up Kits.

1 4 02GN084 GK 8010-01-555-3381 MIL-PRF-23377K, TY I, EA 4
CL N, GALLON KIT

8010-01-555-3381 MIL-PRF-23377K (MIL-PRF-23377J), TYPE I,
CLASS N, GALLON KIT; 5PTMRA01 GRADE A & B
P/N: DE02GN084XMPY22K

Customer PO: CUST PO# 305802

Ref: SO14238

Lot Number:

109474/109475

4

DOM:

January 2016

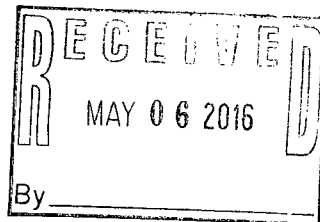
DOE: 01/17

DOM of Repack: N/A

DOE of Repack: N/A

Total Cartons:

.00



Picked By:

Checked By:

1

5/4/2016

PPG Aerospace/PRC DeSoto International certifies that the above materials have been manufactured, tested and conforms to all requirements in accordance with applicable specifications. All test data pertaining to batch acceptance requirements defined by the specification for this material is on file and available for inspection upon request. For Non-US PPG Customers, we can only offer Technical Data/Test Reports for any ITAR or EAR restricted specifications with valid US export authorization

Christopher Tafel

Christopher Tafel - Quality Assurance Specialist

Test Report for MIL-PRF-23377K, Type I, Class N
Cross referencing Honeywell spec MCS9053 Rev P, Type 1, Class 2, Grade 1

FED STD 595 Color: Green Primer Date: 1/26/2016
Deft Code, Base: 02GN084 Deft Code, Catalyst: 02GN084CAT
Batch No., Base: 109474 Batch No., Catalyst: 109475
Customer:
Contract/PO Number:

TEST REQUIREMENTS	TEST RESULTS
Composition (3.4) Lead metal or compounds Incidental Cadmium and compounds Chromium Content (3.4.1.3) [class N only] \leq 5 ppm Volatile Content (3.4.2) - 340 G/L maximum	<0.05% by weight < 1 ppm \leq 5 ppm 307
Physical Component Properties (3.5) Fineness of Grind (3.5.1) - 5 min Condition in Container (3.5.2)	5 Conforms
Physical Admixed Properties (3.6) Color (3.6.1) Odor (3.6.2) Viscosity (3.6.3), Admixed - 40" max in #4 Ford Cup Pot Life (3.6.4), After 4 hrs. 70" max in #4 Ford Cup	Conforms for Type Characteristic 19.22 23.53
Physical Film Properties (3.7) Surface Appearance (3.7.1) Drying Time (3.7.2) 1. Tack Free, 5 hours maximum 2. Dry-Hard, 8 hours maximum Lifting (3.7.3) Adhesion (3.7.4), in water 24 hrs @ room temp Flexibility (3.7.5) 10% minimum, GE Impacter	No Abnormalities 5 Hours 8 Hours No Lifting No Peeling 10%
Resistance Properties (3.8) Water Resistance (3.8.1) 4 days @ 120 deg F Solvent Resistance (3.8.3) min 25 double MEK rubs Fluid Resistance (3.8.4) 1. MIL-PRF-23699, 24 hours @ 250 deg F. 2. MIL-PRF-83282, 24 hours @ 150 deg F.	No Deficiency >25 MEK rubs No Deficiency No Deficiency
Working Properties (3.9) Mixing and Dilution (3.9.1) Application (3.9.2)	No Separation No Sags or Runs

I certify that these test were performed in accordance with the specification test procedure and that the test results in this report as submitted are true, valid and represent required for the above mentioned batch numbers.

RoseMary Puhr
Quality Control, Signature on File

PRC-DeSoto International, Inc., 17451 Von Karman Ave., Irvine, CA 92614

SAFETY DATA SHEET



Date of issue/Date of revision 5 April 2016

Version 3

Section 1. Identification

Product name : 02GN084 BASE COMPONENT
Product code : 02GN084 BASE COMPONENT
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/
mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ☒ FLAMMABLE LIQUIDS - Category 2
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 37.1%

GHS label elements

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
halogenated compounds
carbonyl halides
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
p-chloro- α,α,α -trifluorotoluene	IPEL (PPG). TWA: 25 ppm
butan-2-ol	ACGIH TLV (United States, 3/2015). TWA: 303 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
titanium dioxide	OSHA PEL (United States, 2/2013). TWA: 450 mg/m ³ 8 hours. TWA: 150 ppm 8 hours.
cyclohexanone	OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2015). TWA: 10 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2015). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 20 ppm 8 hours.
pentan-2-one	OSHA PEL (United States, 2/2013). TWA: 200 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 700 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2015). STEL: 150 ppm 15 minutes.
benzyl alcohol	IPEL (PPG). TWA: 10 ppm STEL: 50 ppm
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	None.
crystalline silica, respirable powder (>10 microns)	ACGIH TLV (United States, 3/2015). TWA: 0.025 mg/m ³ 8 hours. Form: Respirable OSHA PEL Z3 (United States, 2/2013). TWA: 10 MG/M3 / (%SiO ₂ +2) 8 hours. Form: Respirable TWA: 250 MPPCF / (%SiO ₂ +5) 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 30 mg/m ³ Form: Total dust
bisphenol A	IPEL (PPG). STEL: 5 mg/m ³
4-nonylphenol, branched	None.
4-methylpentan-2-one	ACGIH TLV (United States, 3/2015). STEL: 75 ppm 15 minutes. TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 410 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

Section 8. Exposure controls/personal protection

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : butyl rubber

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Not available.
Odor : Not available.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.
Boiling point : >37.78°C (>100°F)
Flash point : Closed cup: 7.78°C (46°F)
Material supports combustion. : Yes.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Not available.
Evaporation rate : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 1.44
Density (lbs / gal) : 12.02
Solubility : Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water : Not available.
Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
VOC : 426.1 g/l
% Solid. (w/w) : 52

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.
Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:
oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro- α,α,α -trifluorotoluene	LC50 Inhalation Vapor	Rat	33080 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>2.7 g/kg	-
	LD50 Oral	Rat	13 g/kg	-
butan-2-ol	LC50 Inhalation Vapor	Rat	48500 mg/m ³	4 hours
	LD50 Oral	Rat	2054 mg/kg	-
titanium dioxide	LD50 Oral	Rat	>11 g/kg	-
cyclohexanone	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	0.948 g/kg	-
	LD50 Oral	Rat	1.54 g/kg	-
pentan-2-one	LD50 Dermal	Rabbit	6500 mg/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
benzyl alcohol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	11.4 g/kg	-
bisphenol A	LD50 Dermal	Rabbit	3 g/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
4-nonylphenol, branched	LD50 Dermal	Rabbit	2.14 g/kg	-
	LD50 Oral	Rat	0.58 g/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	32772 mg/m ³	4 hours
	LD50 Oral	Rat	2.08 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-
cyclohexanone	-	3	-
crystalline silica, respirable powder (>10 microns)	-	1	Known to be a human carcinogen.
4-methylpentan-2-one	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
4-chloro- α,α,α -trifluorotoluene	Category 3
butan-2-ol	Category 3
pentan-2-one	Category 3
bisphenol A	Category 3
4-methylpentan-2-one	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
cyclohexanone	Category 1

Target organs

: Contains material which causes damage to the following organs: blood, kidneys, liver, heart, spleen, brain, bone marrow, central nervous system (CNS).

Contains material which may cause damage to the following organs: lungs, upper respiratory tract, skin, bones, eye, lens or cornea, nose/sinuses.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Section 11. Toxicological information

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Can form nitrosamines in the presence of certain organic materials and if heated. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

- Potential immediate effects** : There are no data available on the mixture itself.
- Potential delayed effects** : There are no data available on the mixture itself.

Long term exposure

- Potential immediate effects** : There are no data available on the mixture itself.
- Potential delayed effects** : There are no data available on the mixture itself.

Potential chronic health effects

Section 11. Toxicological information

- General** : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : Suspected of damaging fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5128.2 mg/kg
Dermal	7365.2 mg/kg
Inhalation (gases)	46977.3 ppm
Inhalation (vapors)	75.61 mg/l
Inhalation (dusts and mists)	10.31 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide bisphenol A	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 20.5 mg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Chronic EC10 3.47 mg/l Marine water	Algae - Cochloidium polykrikoides - Exponential growth phase	72 hours
	Chronic NOEC 0.86 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Benzyl alcohol	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
Butan-2-ol	0.61	-	low
cyclohexanone	0.81	-	low
pentan-2-one	0.91	-	low
benzyl alcohol	1.1	-	low
bisphenol A	3.32	43.65	low
4-nonylphenol, branched	-	251.19	low
4-methylpentan-2-one	1.31	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)	Not applicable.

14. Transport information

Additional information

- DOT : None identified.
- IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
4-chloro-α,α,α-trifluorotoluene	Yes.	No.	No.	Yes.	No.
butan-2-ol	Yes.	No.	No.	Yes.	No.
titanium dioxide	No.	No.	No.	No.	Yes.
cyclohexanone	Yes.	No.	No.	Yes.	Yes.
pentan-2-one	Yes.	No.	No.	Yes.	No.
benzyl alcohol	No.	No.	No.	Yes.	No.
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	No.	No.	No.	Yes.	No.
crystalline silica, respirable powder (>10 microns)	No.	No.	No.	No.	Yes.
bisphenol A	Yes.	No.	No.	Yes.	Yes.
4-nonylphenol, branched	No.	No.	No.	Yes.	Yes.
4-methylpentan-2-one	Yes.	No.	No.	Yes.	Yes.

SARA 313

	<u>Chemical name</u>	<u>CAS number</u>	<u>Concentration</u>
Supplier notification	: butan-2-ol	78-92-2	5 - 10

Product code 02GN084 BASE COMPONENT
Product name 02GN084 BASE COMPONENT

Date of issue 5 April 2016

Version 3

Section 15. Regulatory information

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 3/29/2016

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

▣ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 30 January 2016

Version 1.02

Section 1. Identification

Product name : 02GN084CAT CURING SOLUTION
Product code : 02GN084CAT CURING SOLUTION
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating.
Uses advised against : Not applicable.

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 6.9%

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin pentan-2-one	None. OSHA PEL (United States, 2/2013). TWA: 700 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
heptan-2-one	ACGIH TLV (United States, 3/2015). STEL: 150 ppm 15 minutes. ACGIH TLV (United States, 3/2015). TWA: 233 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 465 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane 4-methylpentan-2-one	None. ACGIH TLV (United States, 3/2015). STEL: 75 ppm 15 minutes. TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 410 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

Key to abbreviations

A = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists.
C = Ceiling Limit
F = Fume
IPEL = Internal Permissible Exposure Limit
OSHA = Occupational Safety and Health Administration.
R = Respirable
Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S = Potential skin absorption
SR = Respiratory sensitization
SS = Skin sensitization
STEL = Short term Exposure limit values
TD = Total dust
TLV = Threshold Limit Value
TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.

Section 9. Physical and chemical properties

Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 7.78°C (46°F)
Material supports combustion.	: Yes.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.08
Density (lbs / gal)	: 9.01
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
VOC	: 190 g/l
% Solid. (w/w)	: 81.31

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	LD50 Dermal	Rabbit	>2 g/kg	-
	LD50 Oral	Rat	11.4 g/kg	-
pentan-2-one	LD50 Dermal	Rabbit	6500 mg/kg	-
	LD50 Oral	Rat	1600 mg/kg	-
heptan-2-one	LD50 Dermal	Rabbit	10.206 g/kg	-
	LD50 Oral	Rat	1.6 g/kg	-
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	LC50 Inhalation Dusts and mists	Rat	>5300 mg/m ³	4 hours
	LD50 Dermal	Rabbit	4.3 g/kg	-
	LD50 Oral	Rat	7.01 g/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	32772 mg/m ³	4 hours
	LD50 Oral	Rat	2.08 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
4-methylpentan-2-one	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category
pentan-2-one	Category 3
4-methylpentan-2-one	Category 3

Specific target organ toxicity (repeated exposure)

Not available.

Target organs

: Contains material which causes damage to the following organs: brain, skin.
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, liver, peripheral nervous system, upper respiratory tract, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. Trimethoxysilanes are capable of forming methanol if hydrolyzed or ingested. If swallowed, methanol may be harmful or fatal or cause blindness. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Section 11. Toxicological information

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	9173.9 mg/kg
Dermal	268528.5 mg/kg
Inhalation (gases)	67390.1 ppm
Inhalation (vapors)	164.7 mg/l
Inhalation (dusts and mists)	22.46 mg/l

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
pentan-2-one	0.91	-	low
heptan-2-one	1.98	-	low
4-methylpentan-2-one	1.31	-	low

Mobility in soil

Product code 02GN084CAT CURING SOLUTION

Date of issue 30 January 2016 Version 1.02

Product name 02GN084CAT CURING SOLUTION

Section 12. Ecological information

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(reaction product: bisphenol-A-(epichlorhydrin); epoxy resin)	Not applicable.

Additional information

DOT : None identified.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14. Transport information

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	No.	No.	No.	Yes.	No.
pentan-2-one	Yes.	No.	No.	Yes.	No.
heptan-2-one	Yes.	No.	No.	Yes.	No.
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	No.	No.	No.	Yes.	No.
4-methylpentan-2-one	Yes.	No.	No.	Yes.	Yes.

SARA 313

	<u>Chemical name</u>	<u>CAS number</u>	<u>Concentration</u>
Supplier notification	: 4-methylpentan-2-one	108-10-1	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Product code 02GN084CAT CURING SOLUTION

Date of issue 30 January 2016 Version 1.02

Product name 02GN084CAT CURING SOLUTION

Section 16. Other information

Health : 2 Flammability : 3 Instability : 0

Date of previous issue : 1/26/2016

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

☒ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.



PRODUCT INFORMATION DATA SHEET

17451 Von Karman Avenue, Irvine, CA 92614
Tel (949) 474-0400 (800) 544-3338
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02GN084 (02-GN-84)

Non-Chrome Epoxy Polyamide Primer

Product Information

Specifications	MIL-PRF-23377K Type I Class N 5PTMRA01
Description	Chemically cured, non-chromate, two-component epoxy polyamide primer
Features	<ul style="list-style-type: none">Corrosion inhibitingChemical and Solvent ResistantResistant to immersion in Hydraulic Fluids, Lubricating Oils, Phosphate Ester Based Hydraulic Fluids, Skydrol and Distilled water
Color	Light Aqua Green
Reducer	None required. May be reduced with IS-237*
Mix Ratio	3 parts 02GN084 base by volume to 1 part 02GN084CAT catalyst by volume

Kit size	02GN084 base	02GN084CAT
GK	96 oz / 2.84 L	32 oz / 946 mL
QK	24 oz / 710 mL	8 oz / 237 mL

Pot Life	4 hours at 75° ± 10°F
Viscosity	Initial: 20 ± 2 seconds # 2 EZ Zahn Cup 40 seconds, max, # 4 Ford Cup Pot life: 70 seconds, max, # 4 Ford Cup
Induction Time	None required**
Application Thickness	0.6 – 0.9 mils dry film thickness
Storage Stability	2 years from DOM when stored between 72 - 80°F
Recommended Storage	Store indoors between 70 – 90°F in original unopened containers.

*Use only if needed and if local and state VOC limits allow.
**30 minutes required per TO 1-1-8, 6.12.2.3 (JAN 12, 2010)

Characteristics*

Characteristics	Base	Catalyst	Admixed
Weight per gallon (lbs)	11.8	8.9	11.06
% Solids by weight	51.1	82.2	57.4
% Solids by volume	39.2	76.5	48.5
Coatings VOC (g/L)	405	190	338
Coatings VOC (lbs/gal)	3.4	1.6	2.8
Material VOC (g/L)	297	190	270
Material VOC (lbs/gal)	2.5	1.6	2.3

Dry film density**: 1.57 g/cc
Theoretical Coverage** per gallon as applied: 778 sq. ft.
Theoretical Dry Film Weight per gallon kit as applied:
3.70 g/sq. ft (0.00815-lbs/sq. ft)

* Characteristics are calculated based on product formulas and ingredient characteristics as reported to Deft, Incorporated by raw material suppliers. Values reported are not specification values. They are presented for general information only.

** Dry film density and theoretical coverage based on proper application of coating at 1 mil dry film thickness and 100% transfer efficiency.

Dry Times

Topcoat Window: 3 – 24 hours* Tack Free: 2 hours, min
Dry Hard: 6-8 hours, max Full Cure: 14 days, max

*Note: Dry times above were established at room (ambient) temperatures, 75° ± 2°F and 50% ± 10% Relative Humidity at approximately 0.6-1.0 mils of dry film build. After 8 hours cure, solvent wipe the entire primed surface. After 24 hours of cure, scuff sand the entire primed surface followed by solvent wiping prior to top coating. [Ref: T.O. 1-1-8 Section 6.12.2.5, JAN 12, 2010]. Note: Higher temperatures will reduce the recoat time while lower temperatures will increase the recoat times.

Forced Dry Schedule

For dry to stack conditions only. Allow a minimum of 15 minutes flash off time at ambient temperatures* prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

Temperature	Time
120°F	45 minutes
140°F	30 minutes
160°F	20 minutes
180°F	15 minutes

* Ambient temperatures are defined as 75° ± 2°F and 50% ± 10% Relative Humidity.

Mixing and Thinning

GK & QK: Stir or shake the base component to ensure any pigment, which may have settled on the bottom of the can, has been fully incorporated into the base. Do not stir or shake the base component longer than 5 minutes unless sediment is observed. Then shake for another 5 minutes. Slowly add the one volume of catalyst to three volumes base component. Mix by hand stirring, paint shaker or mechanical mixing to ensure the base/catalyst mixture is completely homogeneous. **DO NOT SHAKE OR MECHANICALLY MIX MATERIAL FOR LONGER THAN 10 MINUTES.** Constant agitation of the material during spray application is recommended.

Application Equipment

Conventional, Air, Air Assisted Airless, HVLP, Electrostatic spray equipment may be used to apply this material. For your application, please contact the equipment manufacturer for more specific information on Conventional, HVLP or Electrostatic spray applications, and recommendations on hose diameter and lengths.

Packaging, Yields, Shipping Weight

This material is available in the follow kit sizes:

Kit size	Approx. Yield (Mixed)	Approx. Shipping Weight
GK	1 gallon (3.8 L)	12.3 lbs (5.6 kg)
QK	1 quart (946 mL)	3.6 lbs (1.6 kg)

Additional kit sizes are available upon request.

Equipment Cleanup

Use IS-237 Epoxy Reducer (MIL-T-81772B Type II) to remove any liquid or residue! primer from equipment. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment

Safety

Refer to the product label or Material Safety Data Sheet (MSDS) for each component for Personal Protective Equipment and Proper Handling.